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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,416	12/09/2003	Robert B. Nilsen	1571.2029-005	3928
21005	7590	05/02/2006	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133			PHAN, JAMES	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/731,416	NILSEN ET AL.	
	Examiner	Art Unit	
	James Phan	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-68 and 70-88 is/are pending in the application.
- 4a) Of the above claim(s) 4-13, 15,30-40,43,51-68 and 70-88 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,14,41,42,44 and 45 is/are rejected.
- 7) ☒ Claim(s) 16-29 and 46-50 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/11/05; 5/13/04</u> | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Election/Restrictions***

Applicant's election with traverse of the species depicted disclosed in an embodiment depicted in Fig. 12 in the reply filed on 1/27/06 is acknowledged. The traversal is on the ground(s) that the election requirement is improper because the examiner's identification of the species based on certain figures is insufficient. The examiner apologizes for failing to provide reasons why the species are distinct. As clearly taught in the application's specification each of the large number of patentably distinct species contains a distinct structure; for an example, the species of Fig. 36 defines an optical structure having different size cube corner prisms (claim 6) while the species of Fig. 39 defines an optical structure having the structure disclosed on page 18, lines 23-25, of the specification and defined in claims 60, 61 and 64. Each of the patentably distinct species having a patentably distinct structure requires a separate search; and thus, a serious burden would impose on the examiner if all the species were searched and examined together. Applicant correctly points out that Fig. 10 is not distinct from Figs. 11 and 12; however, the examiner do not agree that the species of Fig. 11 and the species of Fig. 12 are the same because the species of Fig. 11 having the structure wherein the refractive index of the component (10) and the refractive index of the substrate (44) are not substantially the same, and the species of Fig. 12 having the structure wherein the refractive index of the component (10) and the refractive index of the substrate (44) are substantially the same. The species of Fig. 7 and the species

of Fig. 8, and the species of Fig. 16 and the species of Fig. 17 are patentably distinct for the same reason.

Because the application includes claims directed to a large number of species, only the reasons why the species of Fig. 36 and the species of Fig. 39 are provided as an exemplar. As discussed above, each of the patentably distinct species having a patentably distinct structure requires a separate search; thus, a serious burden would impose on the examiner if all the species were searched and examined together, and thus, a serious burden on the examiner has been shown.

The requirement is still deemed proper and is therefore made FINAL.

Claims 4-13, 15, 17, 19-23, 30-40, 43, 47-68, 70-88 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim.

Note that the listed claims 48-50 do not read on the elected species because they are directly or indirectly dependent on claim 47 which does not read on the elected species of Fig. 12; and that unlisted claim 46 has been rejoined with the listed claims.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 14, 41-42, and 44-45 rejected under 35 U.S.C. 102(b) as being anticipated by Janovec.

In regard to claims 1-2, Janovec discloses an optical structure comprising:

a substrate including layers (seal layer 24 and adhesive layer 32); and a plurality of two-sided optical components located between bond lines (30), each side of each component having optical microstructures (cube-corner prisms 12), the components being disposed along the substrate, wherein at least a portion of one side (the upper side having a portion that is substantially parallel to the substrate as illustrated in Fig. 3) of at least some of the components is air-backed and the other side of the at least some of the components is substantially wetted-out by a material (the left or right side of the components having cube-corner prisms 12 partially embedded in seal layer 24 of the substrate along the bond line as illustrated in Fig. 3). Note that the cube-corner prisms 12 are wetted-out by a material of the seal layer 24 during the thermal bonding process. See Fig. 4 and the accompanying text.

In regard to claim 3, each of the plurality of two-sided optical components has a second substrate (18). See Fig. 2.

In regard to claim 14, the adhesive layer 32 is inherently disclosed as a transparent adhesive because Janovec does not teach or suggest that the adhesive layer 32 is a colored adhesive (column 8, lines 1-9), and because it is not necessary to use colored adhesive for the retroreflective sheeting of Fig. 3.

In regard to claims, 41-42, 44 Janovec discloses a method for forming and optical structure having the step of a disposing/providing a plurality of two-sided optical components along the substrate. See Figs. 3-4.

In regard to claim 45, each of the plurality of two-sided optical components has a second substrate (18). See Fig. 2.

***Allowable Subject Matter***

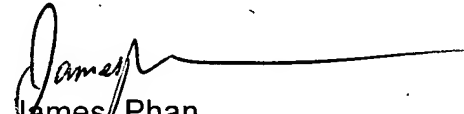
Claims 16-29 and 46-50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Note that claims 17, 19-23 and 47-50 have been rejoined by the examiner.

The following is a statement of reasons for the indication of allowable subject matter: none of the cited references teaches or fairly suggests the claimed invention having the combined features defined in each of claims 16-29 and 46-50.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Phan whose telephone number is (571) 272-2317. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
James Phan  
Primary Examiner  
Art Unit 2872

JP  
April 28, 2006